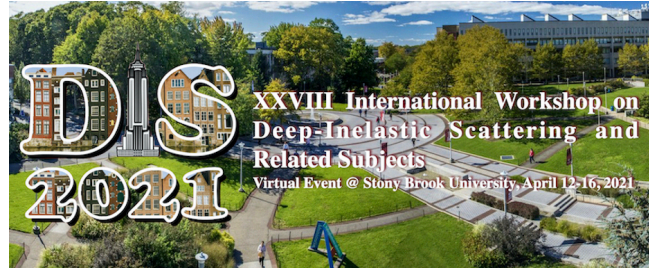


XXVIII International Workshop on Deep-Inelastic Scattering and Related Subjects



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Type: **Contributed Talk**

Measurements of W and Z/γ^* cross sections and their ratios in pp collisions at STAR

Thursday, 15 April 2021 11:30 (20 minutes)

While the unpolarized valence quark (d and u) distributions are well determined from DIS experiments, the sea quark counterparts, \bar{d} and \bar{u} , are much less constrained, in particular, near the valence region. Measurements of W^+/W^- production ratio in pp collider experiments, such as the STAR experiment at RHIC, are sensitive to the \bar{d}/\bar{u} ratio at leading order at a large Q^2 set by the W mass. This talk will discuss the recently published W and Z/γ^* cross section measurements via lepton-decay tagging, using the STAR pp collision data at a center-of-mass energy of $\sqrt{s} = 510$ GeV collected during the years 2011-2013, corresponding to an integrated luminosity of 350 pb^{-1} . A status update will be given on an analysis based on an additional data set at $\sqrt{s} = 510$ GeV collected in 2017, corresponding to an integrated luminosity of 350 pb^{-1} .

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Session Classification: Structure function and parton densities

Track Classification: Structure Functions and Parton Densities